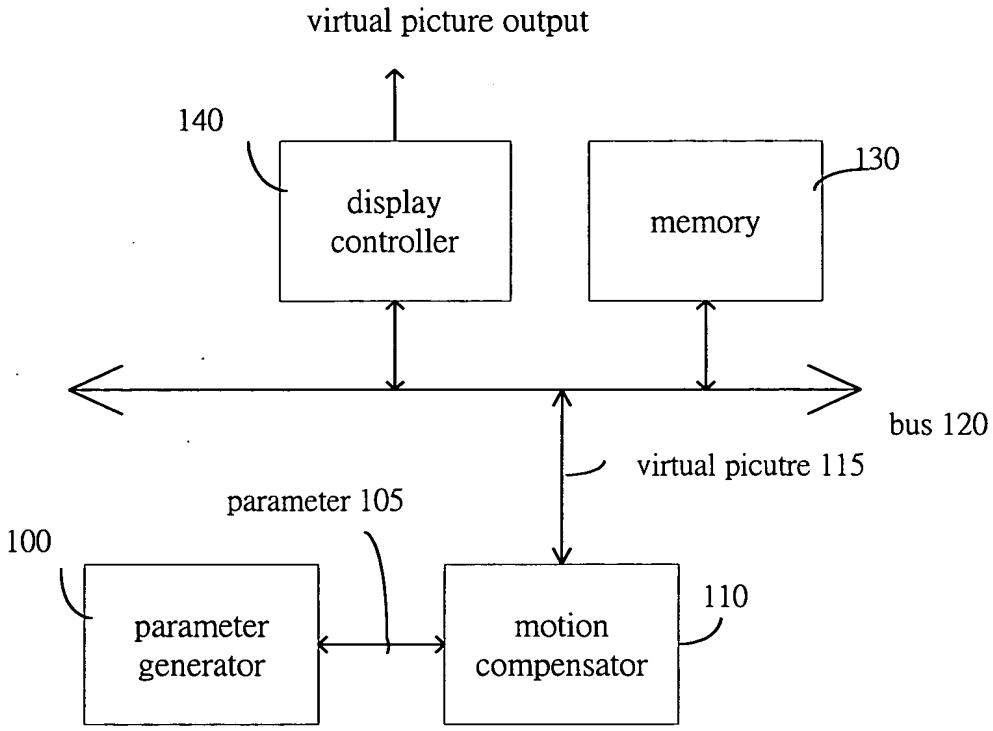
virtual picture output
140
display controller
memory
130
bus 120
virtual picutre 115
parameter 105
100
parameter generator
motion compensator
110

Fig. 1(a)

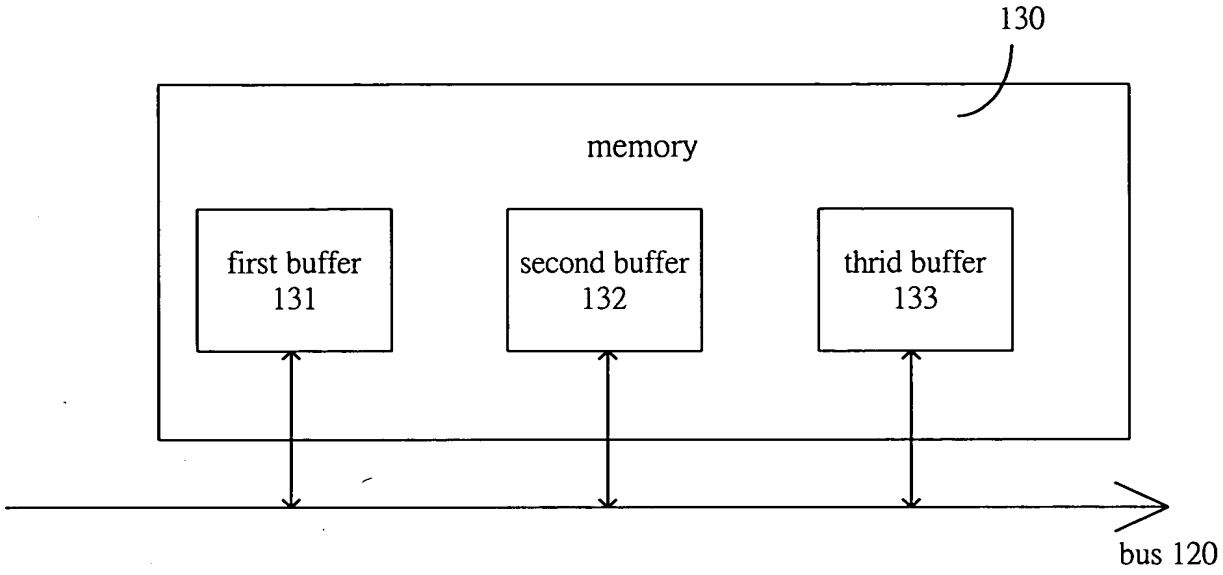
130
memory
first buffer
131
second buffer
132
thrid buffer
133
bus 120

Fig. 1(b)

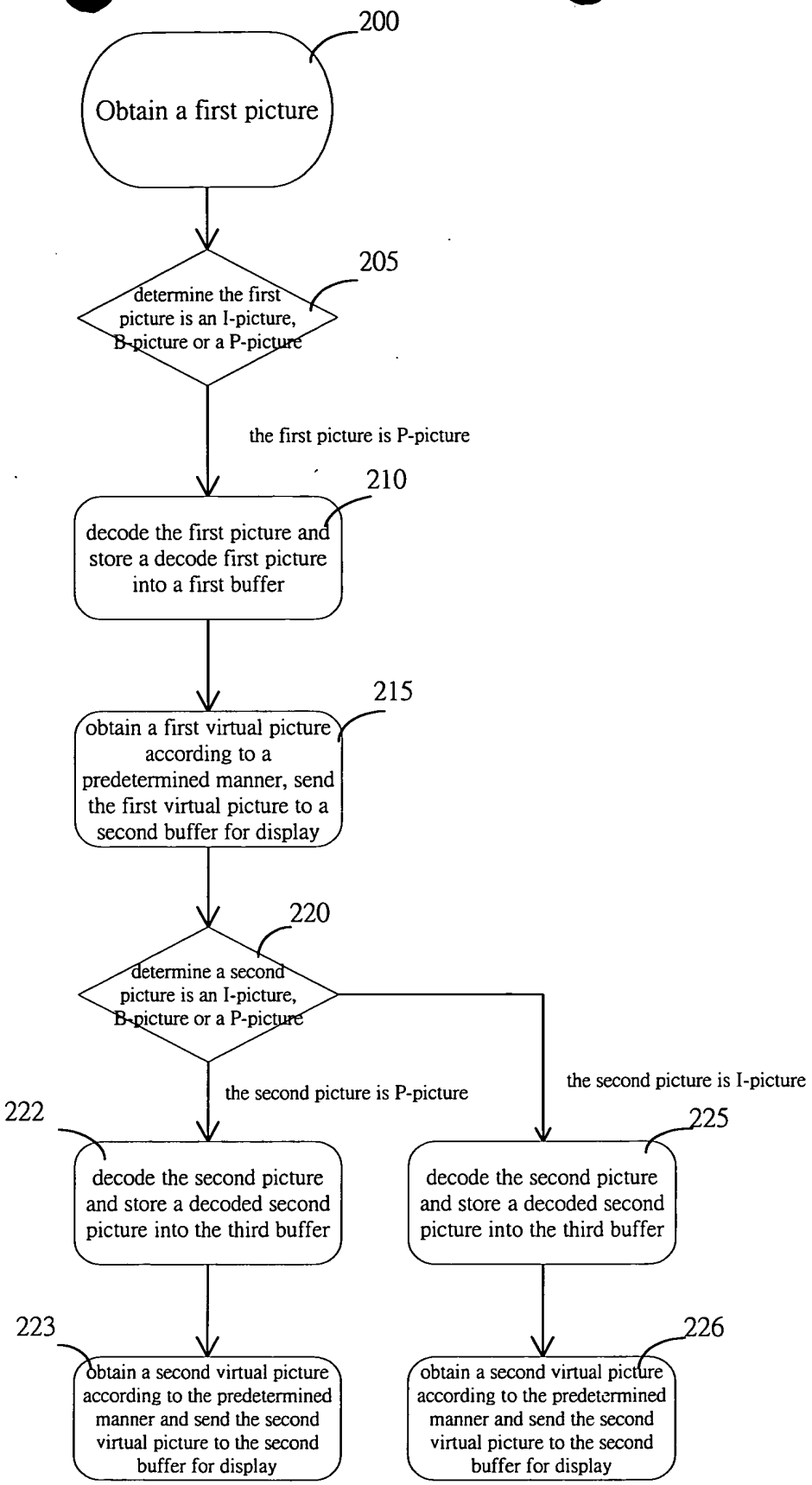
200
Obtain a first picture
205
determine the first picture is an I-picture, B-picture or a P-picture
the first picture is P-picture
210
decode the first picture and store a decode first picture into a first buffer
215
obtain a first virtual picture according to a predetermined manner, send the first virtual picture to a second buffer for display
220
determine a second picture is an I-picture, B-picture or a P-picture
the second picture is P-picture
the second picture is I-picture
222
decode the second picture and store a decoded second picture into the third buffer
225
decode the second picture and store a decoded second picture into the third buffer
223
obtain a second virtual picture according to the predetermined manner and send the second virtual picture to the second buffer for display
226
obtain a second virtual picture according to the predetermined manner and send the second virtual picture to the second buffer for display

Fig. 2 (b)

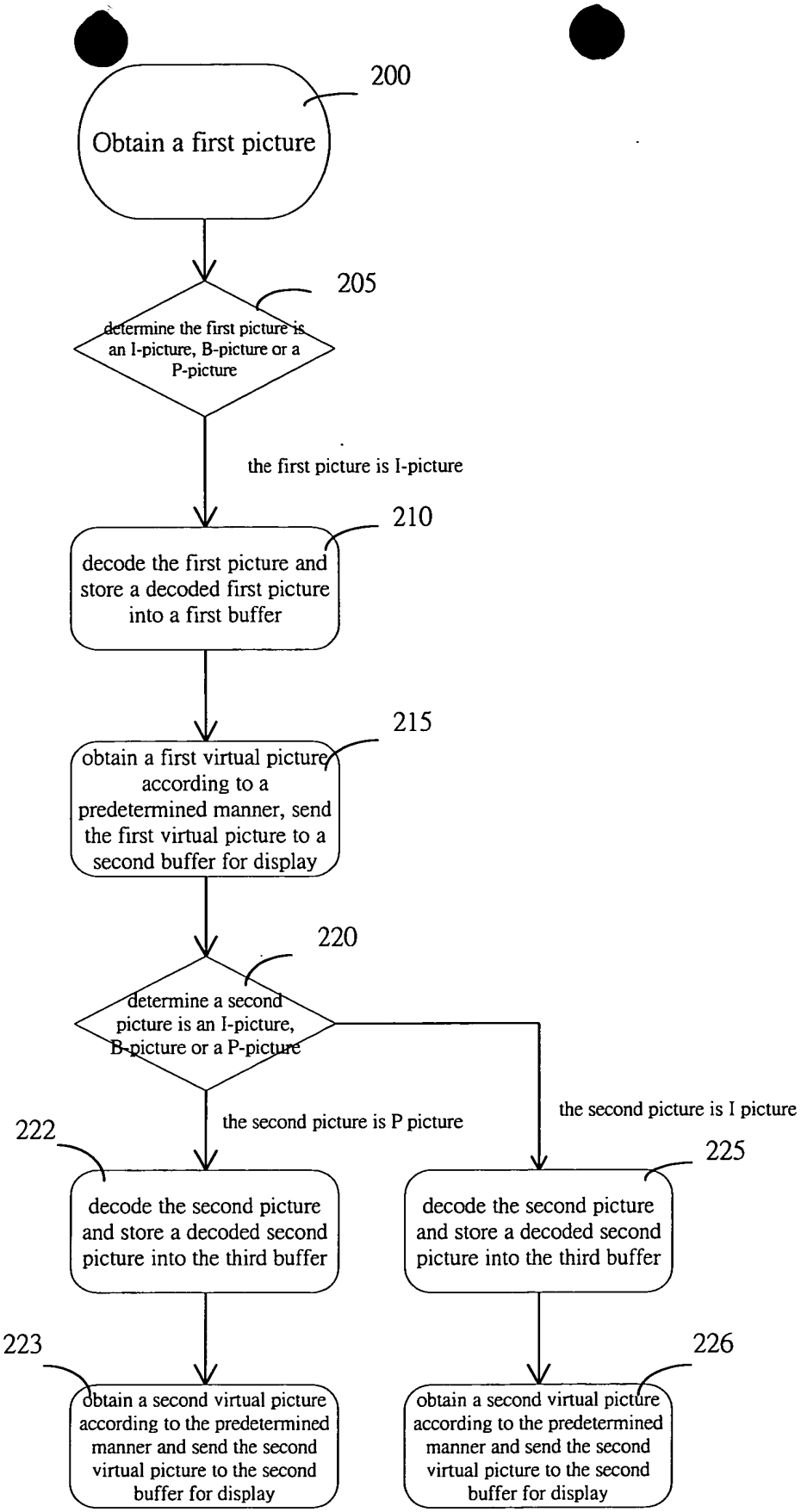
200
Obtain a first picture
205
determine the first picture is an I-picture, B-picture or a P-picture
the first picture is I-picture
210
decode the first picture and store a decoded first picture into a first buffer
215
obtain a first virtual picture according to a predetermined manner, send the first virtual picture to a second buffer for display
220
determine a second picture is an I-picture, B-picture or a P-picture
the second picture is P picture
the second picture is I picture
222
decode the second picture and store a decoded second picture into the third buffer
225
decode the second picture and store a decoded second picture into the third buffer
223
obtain a second virtual picture according to the predetermined manner and send the second virtual picture to the second buffer for display
226
obtain a second virtual picture according to the predetermined manner and send the second virtual picture to the second buffer for display

Fig. 2 (a)

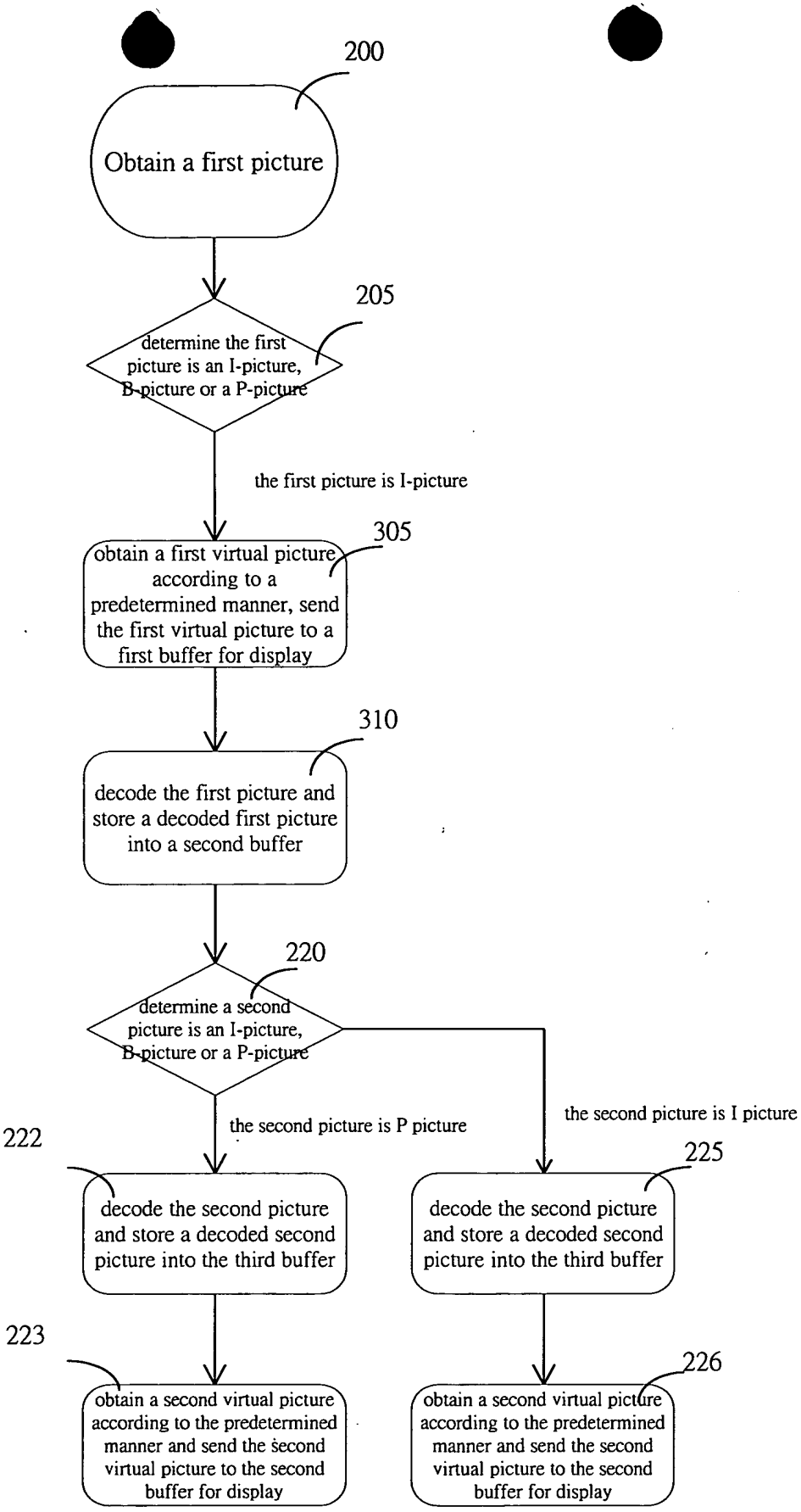
200
Obtain a first picture
205
determine the first picture is an I-picture, B-picture or a P-picture
the first picture is I-picture
305
obtain a first virtual picture according to a predetermined manner, send the first virtual picture to a first buffer for display
310
decode the first picture and store a decoded first picture into a second buffer
220
determine a second picture is an I-picture, B-picture or a P-picture
the second picture is P picture
the second picture is I picture
222
decode the second picture and store a decoded second picture into the third buffer
225
decode the second picture and store a decoded second picture into the third buffer
223
obtain a second virtual picture according to the predetermined manner and send the second virtual picture to the second buffer for display
226
obtain a second virtual picture according to the predetermined manner and send the second virtual picture to the second buffer for display

Fig. 3 (a)

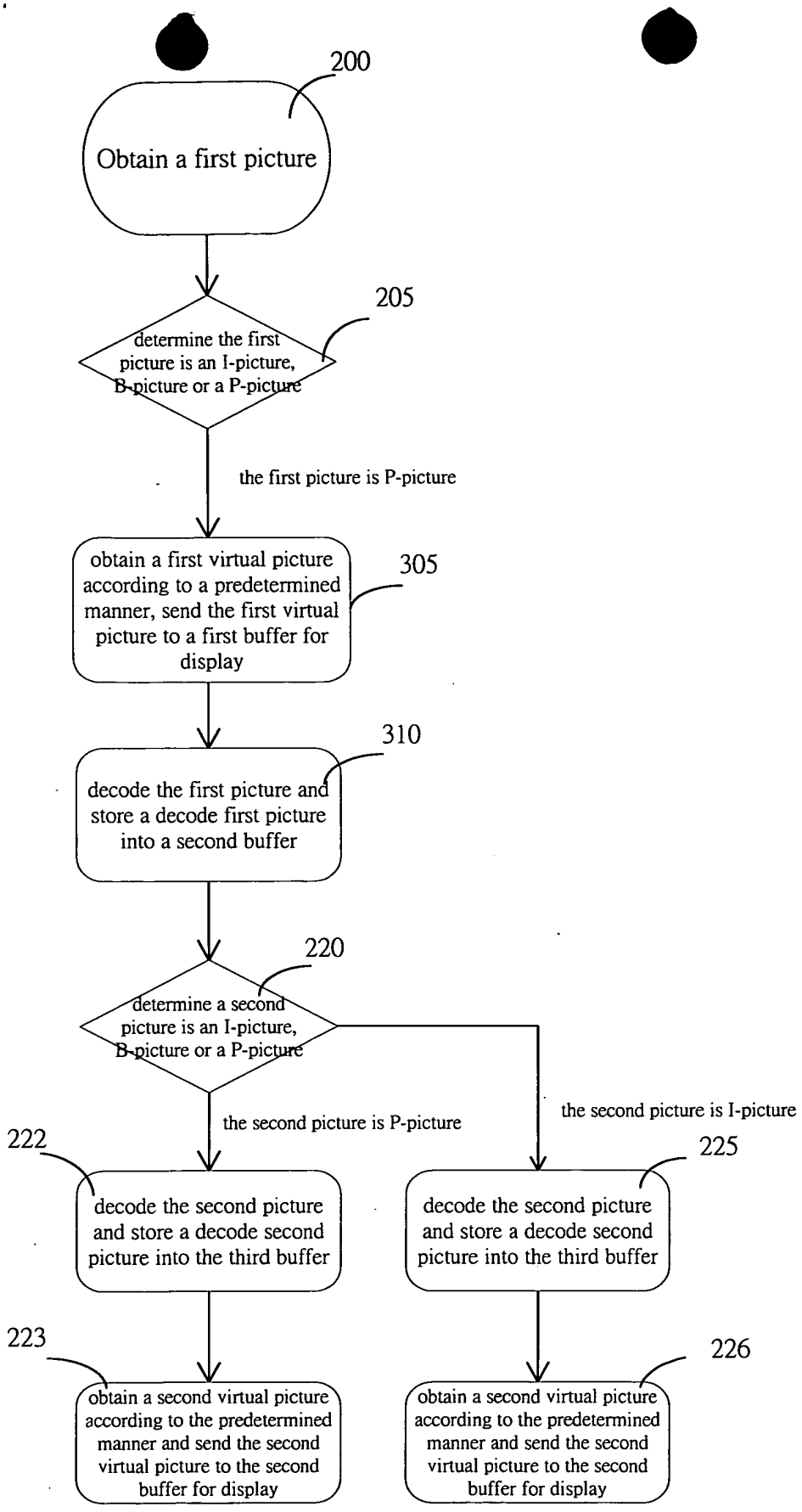
200
Obtain a first picture
205
determine the first picture is an I-picture, B-picture or a P-picture
the first picture is P-picture
obtain a first virtual picture according to a predetermined manner, send the first virtual picture to a first buffer for display
305
310
decode the first picture and store a decode first picture into a second buffer
220
determine a second picture is an I-picture, B-picture or a P-picture
the second picture is P-picture
the second picture is I-picture
222
decode the second picture and store a decode second picture into the third buffer
225
decode the second picture and store a decode second picture into the third buffer
223
obtain a second virtual picture according to the predetermined manner and send the second virtual picture to the second buffer for display
226
obtain a second virtual picture according to the predetermined manner and send the second virtual picture to the second buffer for display

Fig. 3 (b)

time	(display sequence) second buffer	first buffer	third buffer	decode sequence
t 1		I 0		I 0
t 2	I 0 ← generate the virtual picture of I0 and send to second buffer	I 0	P 3 decode P3 and store decoded P3 into third buffer	P 3
t 3	B 1	I 0	P 3	B 1
t 4	B 2	I 0	P 3	B 2
t 5	P 3 ← generate the virtual picture of P3 and send to second buffer	P 6 decode P6 and store decoded P6 into first buffer	P 3	P 6
t 6	B 4	P 6	P 3	B 4
t 7	B 5	P 6	P 3	B 5
t 8	P 6 ← generate the virtual picture of P6 and send to second buffer	P 6	I 9 decode I9 and store decoded I9 into third buffer	I 9
t 9	B 7	P 6	I 9	B 7
t 10	B 8	P 6	I 9	B 8
t 11	I 9 ← generate the virtual picture of I9 and send to second buffer	P 12 decode P12 and store decoded P12 into first buffer	I 9	P 12
t 12	B 10	P 12	I 9	B 10
t 13	B 11	P 12	I 9	B 11
t 14	P 12 ← generate the virtual picture of P12 and send to second buffer	P 12	P 15 decode P15 and store decoded P15 into third buffer	P 15

Fig. 4